

# ACTION PLAN

## Summary of Changes

January 31, 2000

1. Cover Page Date changed
2. Page 3 Miranda Swanson added to *Non-Member Participant List*
3. Page 4 (Not included) *State EMSA OTS Grant* box moved under Subgroup 1
4. Page 7 Goal 3 revised to change reference from “NHTSA data set” to “national data sets.”
5. Page 8 Notes 2 and 3 added to define “provider” and reference sensitivity to rural EMS systems limited funding and resources.
6. Page 10
  - a. 2.1.6 moved up to 2.1.4 with a July 2000 completion date.
  - b. (The reference to “guidelines” in 2.1.7 was left and dealt with on page 31)
7. Page 12-13
  - a. Goal 3 revised to change reference from “NHTSA data set” to “national data sets.”
  - b. HIPPA reference removed from 3.1-3.4
  - c. 3.1.2 - 3.1.10 dates changed to June 2001
  - d.. “ambulance” removed from “transport provider” in 3.1.5
  - e. Date for 3.3.2 changed to October 2000
  - f. One year added to all dates under 3.4
8. Page 14
  - a. 3.6.2 added
  - b. All other dates under 3.6 extended to coordinate with other referenced objectives
9. Page 15 Added new 4.1.3 to address “blinding of data” issue.
10. Page 15,16 Language referencing HIPPA added to 4.1 and 4.2
11. Page 17 & 21 “Provider” added to “. . .state and local level” in 5.1 and 8.2.3
12. Page 31 Note added to clarify that “Guidelines” may need to be changed to regulation or statute if identified as needed in the future.

*Shaping the Future of EMS  
in California*

*Vision Working Group D  
System Review and Data*

**ACTION PLAN**

*(Draft) January 31, 2000*

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## **Background**

In 1997, under the direction and guidance of the California Commission on Emergency Medical Services and the State EMS Authority, the EMS community in California embarked upon an aggressive and unprecedented statewide EMS planning process which would eventually culminate in the development of a, first ever, *State EMS Plan*. The impetus for this project was multifaceted. The impact of managed care, current and anticipated future reductions in reimbursement for EMS services, litigation concerning lines of authority for EMS oversight, conflicting legislation being introduced by various EMS constituency groups, and the lack of standardization of local EMS services were a few of the factors which highlighted the need for the review and redesign of the EMS system in the state.

The first phase of the planning project was the creation of a common vision among EMS constituency groups, and the development of strategic goals. To begin the process, the EMS Commission established eight, multi-disciplinary subcommittees to identify the most important deficiencies of the present EMS system and devise a consensus implementation strategy to correct them. The results of the subcommittees' work was presented at an EMS vision conference held in December 1998 in San Francisco. At that conference, the objectives from each of the subcommittees were refined and eventually chronicled in a vision conference summary entitled, "Shaping the Future of EMS in California." In addition to the state vision process, the State EMS Authority also invited the National Highway Traffic Safety Administration (NHTSA) to conduct an assessment of the California EMS system. This comprehensive, four-day assessment by a team of national EMS system experts, was completed in August of 1999.

*Shaping the Future of EMS in California* contained sixty-six strategic objectives, and the NHTSA assessment contained ninety recommendations for system improvement. To further address these issues, the vision objectives and NHTSA recommendations were divided into six major categories: *Funding, Governance and Medical Control, Education and Personnel, System Review and Data, Access, and Prevention*. A vision process committee, or Work Group, was assigned to each category. The charge of each of the Work Groups was twofold. Phase I would include the development of action plans by each of the groups to address the objectives and recommendations assigned to them. Once the action plans were approved by the EMS Commission, the groups would begin Phase II of the project which is to complete the steps outlined in the action plans. The entire process is estimated to be accomplished by December 2002.

The EMS Commission has retained overall administration of the process and has identified a Vision Project Team to provide ongoing oversight of the project. Prevention 2000 grant funding has been identified and funded through the Sierra-Sacramento Valley EMS Agency to cover

project expenses. This grant project includes funding to hire a Project Manager, who will direct the project and serve on the Vision Project Team along with the EMS Authority Director, an EMS Commissioner, and the leaders of each of the six working groups. While the Project Team will utilize the action plans submitted by all six of the work groups to incorporate them into a single State EMS Plan, this report focuses only on the action plan of the System Review and Data Vision Committee, or Work Group “D.”

Work Group D was assigned fourteen of the sixty-six vision objectives and fifteen of the NHTSA recommendations (See Appendix A). At the first meeting of the group, held in September 1999, three subgroups were created; 1) *Data System Design*, 2) *Evaluation & Improvement*, and 3) *Legislation*. Leaders and members were identified, and overlapping objectives and recommendations were consolidated and divided among each of the subgroups. A state funded, Statewide EMS System Evaluation Grant project cosponsored by the Mountain-Valley, Los Angeles, and North Coast EMS Agencies, which has accomplished much of the preliminary work in the development of system indicators, organizational structure, and quality improvement was also integrated into the Work Group D efforts under the *Evaluation and Improvement* subgroup. A three year, Office of Traffic Safety (OTS) grant project awarded to the State EMS Authority to assist in the development of the Work Group D objectives, will also be coordinated with, and integrated into, this vision project.

Following the September meeting, the subgroups identified ten goals which encompassed the vision objectives and NHTSA recommendations and incorporated them into the work group *Project Goals* (page 7). These Project Goals were designed to provide overall guidance and direction for the group. Objectives and action steps were then developed to meet each of the identified goals. These goals, objectives and action steps provide the mechanism to complete a comprehensive EMS system evaluation for the state and the completion of this report fulfills the charge of Phase I of the project, *creating an action plan*.

## **Acknowledgments**

## **SYSTEM REVIEW AND DATA WORK GROUP**

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North Coast EMS Agency  
OSHPD  
Stanislaus Consolidated Fire  
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Long Beach Fire Dept.  
  
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Mountain-Valley EMS Agency  
Solano EMS Cooperative  
California State Fire Marshals Office  
Tuolumne County EMS Agency  
San Jose Fire Department

## **Planning Structure**

## **Executive Summary**

*“We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one we intend to win . . . “*

*John F. Kennedy*  
Rice University - September 12, 1962

It may seem a bit pretentious to compare the development of a statewide data and system review process for EMS with the 1960's race to land a man on the moon. However, as we set out to map the direction we will take, the task seems just as arduous. Perhaps this is why no state in the nation has yet fully accomplished this feat.

Not unlike the quest to conquer space, developing a sound mechanism to measure the effectiveness of, and improve the services provided by the EMS system in California has begun with a vision. This vision was revealed at the December 1998 vision conference and became the impetus for the process outlined in this Action Plan. The goals, objectives, and action steps included in this document provide a step-by-step process to bring us from the fragmented and uncoordinated EMS evaluation system in place today, to an established and comprehensive system that allows for effective evaluation and improvement of the services we perform.

Included in this action plan is a process for the periodic evaluation of the state EMS regulatory agencies to ensure these lead organizations are providing the necessary leadership and direction to the EMS development and maintenance process. The plan outlines a method for the development of a standardized EMS data collection system that will ensure that accurate and timely data can be collected and shared among EMS system participants, and will allow integration and sharing of that data with other private, state, and federal agencies and organizations as appropriate.

This plan promotes the establishment of standardized performance indicators to facilitate comparative analysis of EMS system performance among the local systems and EMS providers. It creates a mechanism for the data to be utilized in a statewide, continuous quality improvement process that provides ongoing system enhancement, as well as establishes linkages with EMS training and prevention programs to ensure that needs identified through the evaluation process are integrated into these EMS training curriculum and prevention efforts. It also calls for system evaluation training for all levels of EMS system personnel to ensure proper documentation, data entry, analysis, and utilization of data.



This action plan will also serve as a template for coordinating the revision of EMS regulations and promoting new legislation associated with EMS data collection and system evaluation. It provides for the coordination of efforts with other state work groups and standing committees and promotes the utilization of national standards whenever possible.

Once the objectives of this plan are successfully realized, they will provide for strengthened immunity and discovery protection for all local and state EMS quality improvement processes. They will also provide guidelines for conducting and funding state supported or state required research. And finally, they will provide for the development of a sound organizational structure and standard operating procedures necessary for the implementation and maintenance of the EMS data collection, evaluation, and improvement process.

## **Project Goals**

The future EMS evaluation and improvement system in the state of California will include:

1. A mechanism for periodic performance evaluations of the state's EMS regulatory agencies.
2. A comprehensive data collection system capable of gathering and integrating pertinent, timely, and accurate data from all state EMS system participants, and providing data linkages with other private, state, and federal agencies and organizations as appropriate.
3. Standardized definitions, indicators, and benchmarks, to include the consideration of all national EMS data sets, to facilitate comparative analysis of local system performance, quality of patient care, customer satisfaction, and system cost on a state and national level.
4. A mechanism to ensure feedback of data reports to all contributing agencies while maintaining confidentiality and security of the data. This process will include a mechanism for prehospital personnel to receive timely feedback on the physician diagnosis and disposition of their patients.
5. A mechanism to ensure the data is utilized at the state, local and provider level for continuous quality improvement aimed at improving EMS services and quality of patient care, decreasing death and disability, and reducing costs.
6. Communication linkages with EMS training and prevention programs to ensure needs identified through the evaluation process are integrated into the EMS training curriculum and prevention programs.
7. System evaluation training for all levels of EMS system personnel to ensure proper documentation, data entry, analysis, utilization of data and an understanding of the principles of research.
8. Immunity for medical control and quality improvement processes and discovery protection for all local and state EMS quality improvement efforts to ensure cooperation and participation of all EMS participants in patient care and EMS service evaluation.
9. Guidelines for conducting and funding state supported or state required EMS research.
10. An organizational structure, standard operating procedures and funding necessary for the implementation and maintenance of a statewide EMS data collection, evaluation and improvement process.

## Objectives and Action Steps

- NOTE 1: All project years listed under the *Estimated Completion Date* column are calculated on a calendar year. Year 1 = 2000, Year 2 = 2001, Year 3 = 2002
- NOTE 2: The definition of “provider” as utilized in this section includes all EMS service providers to include: training programs, dispatch centers, first response agencies, transport providers, special response services, base hospitals, and patient receiving facilities.
- NOTE 3: It shall be recognized through the development and implementation of these objectives that rural EMS systems may need to be given special consideration due to the limited resources and system funding in those areas.

### GOAL 1

**Establish a mechanism for the periodic performance evaluation of the state’s EMS regulatory agencies.**

<b><u>Objective 1.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop guidelines and criteria for periodic evaluation of the performance of the <u>State EMS Authority</u>.</b>	<b>No</b>	<b>No</b>	<b>State EMS Authority Evaluation Guidelines</b>	<b>Group D</b>	<b>Oct 2001</b>
<b><u>Action Steps</u></b>					
1.1.1	Develop draft evaluation criteria based upon <i>The Baldrige Categories Applied to EMS</i> as outlined in the <i>NHTSA Leadership Guide to Quality Improvement for EMS</i> to include measuring compliance with all statutory and regulatory requirements and national standards for EMS system oversight from a customer perspective.			Group D	May 2000
1.1.2	Establish recommendations for the evaluation process to include: who will conduct the evaluation, how often, evaluation forms, final reporting format and distribution list.			Group D	June 2000
1.1.3	Compile evaluation criteria and process recommendations into draft <i>State EMS Authority Evaluation Guidelines</i> document.			Group D	July 2000
1.1.4	Submit draft guidelines to State EMSA for written comment and revise as needed.			Group D	Aug. 2000
1.1.5	Submit draft guidelines to Work Group D for comment and preliminary approval.			Group D	Oct. 2000
1.1.6	Upon approval of the Project Team, submit draft guidelines to EMS Commission for approval to begin the formal EMS guideline development process.			EMSA & Group D	Dec 2000
1.1.7	Work with State EMSA to make revisions during public comment periods.			Group D	June 2001
1.1.8	Submit final guidelines to EMS Commission for adoption.			EMSA	Aug 2001
1.1.9	Conduct State EMS Authority evaluations based upon guidelines.			TBD	Ongoing
1.1.10	Evaluate if any regulatory or legislative changes are required to ensure the guidelines established under this section are followed.			EMSA & S Group 3	Oct. 2001

<b><u>Objective 1.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completi on Date</b>
<b>To develop guidelines and criteria for periodic evaluation of the performance of <u>local EMS agencies</u>.</b>	<b>No</b>	<b>No</b>	<b>Local EMS Agency Evaluation Guidelines</b>	<b>Group D</b>	<b>Aug 2001</b>
<b><u>Action Steps</u></b>					
1.2.1	Develop draft evaluation criteria based upon <i>The Baldrige Categories Applied to EMS</i> as outlined in the NHTSA <i>Leadership Guide to Quality Improvement for EMS</i> to included measuring compliance with all statutory, regulatory, and EMS system guideline requirements as well as national standards for EMS system oversight.			Group D	May 2000
1.2.2	Establish recommendations for the evaluation process to include: who will conduct the evaluation, how often, evaluation forms, final reporting format and distribution list.			Group D	June 2000
1.2.3	Establish process and format for comparative financial analysis of LEMSAs based upon the document <i>Organization and Financing of Local EMS Agencies in California, 1993-94</i> .			Group D	June 2000
1.2.4	Compile evaluation criteria and process recommendations into draft <i>Local EMS Agency Evaluation Guidelines</i> document.			Group D	July 2000
1.2.5	Submit draft guidelines to State EMSA for written comment and revise as needed.			Group D	Aug 2000
1.2.6	Submit draft guidelines to Work Group D for comment and preliminary approval.			Group D	Oct 2000
1.2.7	Upon approval of the Project Team, submit draft guidelines to EMS Commission for approval to begin the guideline development process.			EMSA & Group D	Dec 2000
1.2.8	Work with State EMSA to make revisions during public comment periods.			Group D	June 2001
1.2.9	Submit final guidelines to EMS Commission for adoption.			EMSA	Aug 2001
1.2.10	Conduct State EMS Authority evaluations based upon guidelines.			TBD	Ongoing
1.2.11	Evaluate if any regulatory or legislative changes are required to ensure the guidelines established under this section are followed.			EMSA & S Group 3	Oct 2001

## GOAL 2

**Establish a comprehensive data collection system capable of gathering and integrating pertinent, timely, and accurate data from all state EMS system participants, and provide data linkages with other private, state, and federal agencies and organizations as appropriate.**

<b><u>Objective 2.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop a statewide EMS data collection system.</b>	<b>Yes</b>	<b>Yes</b>	<b>See 2.3</b>	<b>S Group 1</b>	<b>Dec 2002</b>
<b><u>Action Steps</u></b>					
2.1.1	Identify all EMS system participants from which data would be required.			S Group 1 & OTSG*	Feb 2000
2.1.2	Conduct an evaluation of current EMS database system designs and collection/reporting capabilities of system participants.			S Group 1 & OTSG	Mar 2000
2.1.3	Research other statewide data collection models nationally and internationally and all current and upcoming technologies available for EMS data collection.			S Group 1 & OTSG	Apr 2000
2.1.4	Identify need for legislation to ensure participation in the data collection system by all system participants and forward to Subgroup 3 for legislative development.			S Group 1 & OTSG	July 2000
2.1.5	Establish beta test version of a data collection system capable of gathering data from all state EMS participants.			S Group 1 & OTSG	Oct 2000
2.1.6	Identify the optimal EMS data collection model for the state which would identify the optimal data collection forms and processes, input methodologies, collection process (centralized vs decentralized), database(s) to be developed or utilized, and system access and security.			S Group 1 & OTSG	June 2001
2.1.7	Develop a draft "EMS Data Collection Model" for inclusion in <i>the State EMS Data Collection and Reporting Process Guidelines</i> (See Objective 2.3).			S Group 1 & OTSG	Oct 2001
2.18	Establish a comprehensive data collection system capable of gathering pertinent, timely and accurate data from all EMS system participants.			OTSG	Dec 2002

\*State EMSA OTS Grant

<b><u>Objective 2.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop process for linking EMS data with other private, state, and federal agencies and organizations as appropriate.</b>	<b>Yes</b>	<b>Yes</b>	<b>See 2.3</b>	<b>S Group 1</b>	<b>Jun 2001</b>
<b><u>Action Steps</u></b>					
2.2.1	Identify potential agencies and organizations which may be interested in linking databases.			S Group 1 & OTSG	Oct 2000
2.2.2	Conduct meeting(s) with those agencies and organizations to establish interest in data linkages, identifying common patient identifiers, processes for linkages, and access and security.			S Group 1 & OTSG	Apr 2001
2.2.3	Develop written documentation of agencies/organizations with whom data linkages will occur, a list of agencies which may be considered for future linkages, common patient identifiers, and processes for linking the data to include access and security.			S Group 1 & OTSG	Jun 2001

2.2.4	Include the above in the <i>State EMS Data Collection and Reporting Process Guidelines</i> (See Objective 2.3).	S Group 1 & OTSG	Dec 2000
2.2.5	Contract for data linkage programming	OTSG	Jun 2001
2.2.6	Provide data linkages with other private, state and federal agencies and organizations as appropriate	OTSG	Dec 2002

<b><u>Objective 2.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop <i>State Data Collection and Reporting Process Guidelines</i> Document.</b>	<b>Yes</b>	<b>No</b>	<b>State Data Collection and Reporting Process Guidelines</b>	<b>S Group 1</b>	<b>Nov 2002</b>
<b><u>Action Steps</u></b>					
2.3.1	Develop format for the document.			S Group 1 & OTSG	Dec 2000
2.3.2	Include written documentation from Objectives 2.1 and 2.2.			S Group 1 & OTSG	Oct 2001
2.3.3	Develop draft of <i>State EMS Data Collection and Reporting Process Guidelines</i> to include organizational structure from Objective 10.1, all necessary charts, graphs, organizational chart, preface materials, and appendices.			S Group 1 & OTSG	Dec 2001
2.3.4	Submit draft guidelines to State EMSA for written comment and revise as needed.			S Group 1 & OTSG	Dec 2001
2.3.5	Submit draft guidelines to Work Group D for comment and preliminary approval.			S Group 1 & OTSG	Feb 2002
2.3.6	Upon approval of the Project Team, submit draft guidelines to EMS Commission for approval to begin the formal EMS guideline development process.			EMSA & Group D	Apr 2002
2.3.7	Work with State EMSA to make revisions during public comment periods.			Group D	Mar 2002
2.3.8	Submit final guidelines to EMS Commission for adoption.			EMSA	Nov 2002

<b><u>Objective 2.4</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current regulations to ensure all data collection requirements developed under this goal are included.</b>	<b>No</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
2.4.1	Identify all current, and monitor proposed affected regulations.			S Group 3 & OTSG	Ongoing
2.4.2	Draft appropriate language revisions for each regulation which would ensure compliance with the <i>State Data Collection and Reporting Process Guidelines</i> .			S Group 3 & OTSG	
2.4.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.			S Group 3 & OTSG	

### GOAL 3

**Establish standardized definitions, indicators, and benchmarks, to include the consideration of all national EMS Data sets, to facilitate comparative analysis of local system performance, quality of patient care, customer satisfaction, and system cost on a state and national level.**

<b><u>Objective 3.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop (or adopt current) standardized definitions, indicators, and benchmarks to facilitate comparative analysis of <u>local system performance</u>.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 3.5</b>	<b>S Group 2</b>	<b>Jun 2001</b>
<b><u>Action Steps</u></b>					
3.1.1	Develop standardized process and format for definition, indicator and benchmark development.			S-Group 2	Jun 2000
3.1.2	Develop <u>Training Program</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.3	Develop <u>Dispatch</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.4	Develop <u>First Response</u> data indicators, benchmarks, collection, and validation processes for; Public Safety, BLS, AED, and ALS.			S-Group 2	Jun 2001
3.1.5	Develop <u>Transport Provider</u> data indicators, benchmarks, collection, and validation processes for; BLS, ALS, CCT, and Air Ambulance.			S-Group 2	Jun 2001
3.1.6	Develop <u>Special Response Services</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.7	Develop <u>Base Hospital</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.8	Develop <u>Receiving Hospitals</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.9	Develop <u>Specialty Care Service</u> data indicators, benchmarks, collection, and validation processes for; Trauma Centers, Pediatric Centers, Burn Centers, and Spinal Cord Centers.			S-Group 2	Jun 2001
3.1.10	Develop <u>Disaster/Multi-Casualty Incident</u> data indicators, benchmarks, collection, and validation processes.			S-Group 2	Jun 2001
3.1.11	Conduct periodic data collection sample tests to check the feasibility of the collection process			S-Group 2	On going
3.1.12	Include all data indicators, benchmarks, collection, and validation processes in <i>State EMS System Evaluation Guidelines</i> ( See Objective 3.5) and <i>State EMS Data Set</i> (See Objective 3.6).			S-Group 2	Aug 2001

<b><u>Objective 3.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop (or adopt current) standardized definitions, indicators, and benchmarks to facilitate comparative analysis of <u>quality of care</u>.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 3.5</b>	<b>S Group 2</b>	<b>Jun 2001</b>
<b><u>Action Steps</u></b>					
3.2.1	Develop standardized Treatment Protocols Compliance data indicators, benchmarks, collection, and validation processes.			S Group 2	Mar 2001
3.2.2	Develop standardized Skill Success Rates data indicators, benchmarks, collection, and validation processes.			S Group 2	Mar 2001
3.2.3	Develop mechanisms to evaluate the effectiveness of treatment protocols through, but not limited to, an expert data review process and research.			S Group 2	Mar 2001

3.2.4	Include all data indicators, benchmarks, collection, and validation processes in <i>State EMS System Evaluation Guidelines</i> ( See Objective 3.5) and <i>State EMS Data Set</i> (See Objective 3.6).	S Group 2	Jun 2001
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<b><u>Objective 3.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop (or adopt current) standardized definitions, indicators, and benchmarks to facilitate comparative analysis of <u>EMS customer satisfaction</u>.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 3.5</b>	<b>S Group 2</b>	<b>Jun 2001</b>
<b><u>Action Steps</u></b>					
3.3.1	Identify all customer groups.			S Group 2	Mar 2000
3.3.2	Develop, through the utilization of focus groups and surveys of the pre-identified customer groups, a list of expectations of those groups.			S Group 2	Oct 2000
3.3.3	Develop draft data indicators and benchmarks to measure those expectations.			S Group 2	Dec 2000
3.3.4	Develop processes to collect and validate data from customer groups.			S Group 2	Apr 2001
3.3.5	Include all data indicators, benchmarks, collection, and validation processes in <i>State EMS System Evaluation Guidelines</i> ( See Objective 3.5) and <i>State EMS Data Set</i> (See Objective 3.6).			S Group 2	Jun 2001

<b><u>Objective 3.4</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop (or adopt current) standardized definitions, indicators, and benchmarks to facilitate comparative analysis of <u>cost of EMS services</u>.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 3.5</b>	<b>S Group 2</b>	<b>Jun 2002</b>
<b><u>Action Steps</u></b>					
3.4.1	Identify all cost centers associated with EMS services.			S Group 2	May 2001
3.4.2	Conduct meeting(s) with representative from each type of cost center to determine types of cost which would require ongoing evaluation and monitoring.			S Group 2	July 2001
3.4.3	Identify existing standards for the measurement of EMS / health care costs for each cost center identified.			S Group 2	Sept 2001
3.4.4	Develop cost trend analysis and cost ratio criteria based upon the above.			S Group 2	Nov 2001
3.4.5	Develop data indicators, benchmarks, collection, and validation processes necessary to evaluate cost trends and ratios from all cost centers.			S Group 2	Jan 2002
3.4.6	Identify and mandate confidentiality and blinding mechanisms to ensure security of proprietary data.			S Group 2	Apr 2002
3.4.7	Evaluate the need for legislation to ensure compliance and participation of all identified cost centers, and forward those legislative needs to the Legislative Subgroup 3.			S Group 2	Apr 2002
3.4.8	Include all data indicators, benchmarks, collection, and validation processes in <i>State EMS System Evaluation Guidelines</i> ( See Objective 3.5) and <i>State EMS Data Set</i> (See Objective 3.6).			S Group 2	Jun 2002

<b><u>Objective 3.5</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
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<b>To develop <i>State EMS System Evaluation Guidelines</i>.</b>	<b>Yes</b>	<b>No</b>	<b>State EMS System Evaluation Guidelines</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
3.5.1	Draft <i>State EMS System Evaluation Guidelines</i> to include all program areas above and include all pertinent components of Objective 10.1 (Organizational Structure).			S Group 2	
3.5.2	Submit <i>State EMS System Evaluation Guidelines</i> to Work Group D for preliminary approval.			S Group 2	
3.5.3	Upon approval of the Project Team, submit <i>State EMS System Evaluation Guidelines</i> to the State EMS Commission for approval to begin the formal EMS guideline development process.			EMSA & Group D	
3.5.4	Work with State EMSA to make revisions during public comment periods.			Group D	
3.5.5	Submit guidelines to EMS Commission for adoption.			EMSA	

<b><u>Objective 3.6</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop a State EMS Data Set</b>	<b>Yes</b>	<b>No</b>	<b>State EMS Data Set</b>	<b>S Group 1</b>	<b>May 2002</b>
<b><u>Action Steps</u></b>					
3.6.1	Research and review all currently existing EMS data sets at a state and national level.			S Group 1 & OTSG	Apr 2000
3.6.2	Develop a preliminary draft data set to use in data system development.			S Group 1 & OTSG	Jun 2000
3.6.3	Identify all data elements required under Objectives 2.1 - 2.3 and 3.1 - 3.4.			S Group 1 & OTSG	July 2001
3.6.4	Identify any other data elements required as part of this action plan.			S Group 1 & OTSG	Aug 2001
3.6.5	Revise, and reformat if needed the current State EMS Data Set.			S Group 1 & OTSG	Sept 2001
3.6.6	Submit draft of revised State EMS Data Set to Work Group D for preliminary approval.			S Group 1 & OTSG	Nov 2001
3.6.7	Upon approval of the Project Team, submit revised State EMS Data Set to the State EMS Commission as draft guidelines for approval to begin the formal EMS guideline development process.			EMSA & Group D	Dec 2001
3.6.8	Work with State EMSA to make revisions during public comment periods.			Group D	Mar 2002
3.6.9	Submit guidelines to EMS Commission for adoption.			EMSA	May 2002

<b><u>Objective 3.7</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current regulations to ensure all EMS system evaluation requirements developed under this goal are included.</b>	<b>No</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 2</b>

<b>Action Steps</b>			
3.7.1	Identify all current, and monitor proposed affected regulations.	S Group 3	Ongoing
3.7.2	Draft appropriate language revisions for each regulation which would ensure compliance with the <i>State EMS System Evaluation Guidelines</i> .	S Group 3	
3.7.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.	S Group 3	

#### GOAL 4

**Establish a mechanism to ensure feedback of data reports to all contributing agencies while maintaining confidentiality and security of the data. This process will include a mechanism for prehospital personnel to receive timely feedback on the physician diagnosis and disposition of their patients.**

<b>Objective 4.1</b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop data feedback mechanisms ensuring compatability with the Health Insurance Portability and Accountability Act of 1996 (HIPAA).</b>	<b>Yes</b>	<b>Yes</b>	<b>See Objective 2.3</b>	<b>S Group 1</b>	<b>Begin in Year 2</b>
<b>Action Steps</b>					
4.1.1	Identify all contributing agencies from Objective 2.1.1			S Group 1 & OTSG	
4.1.2	Develop draft data feedback reports and data access processes for each contributing agency and identify who will be collecting/reporting agency developing those reports. These reports shall include a draft report to be released by the State EMSA annually on the effectiveness and efficiency of EMS services in California. The report shall include an evaluation of the adequacy, quality, effectiveness and cost of EMS services as well as plans for improvement.			S Group 1 & OTSG	
4.1.3	Develop guidelines to establish how data will be utilized by regulatory agencies and how it will be reported to the public and customers of the system.			S Group 1 & OTSG	
4.1.4	Submit draft data feedback reports and access processes to each contributing agency for input and revise as needed.			S Group 1 & OTSG	
4.1.5	Develop process and timelines for developing and submitting feedback reports to all contributing agencies.			S Group 1 & OTSG	
4.1.6	Develop a list of information points (e.g. patient diagnosis, disposition, etc) which should be provided as feedback to the prehospital crews following delivery of the patient to an E.D.			S Group 1 & OTSG	
4.1.7	Develop a reasonable time-limit and example reporting processes to meet that time-limit			S Group 1 & OTSG	
4.1.8	Submit time-limit requirement to Subgroup 3 for legislative or regulatory development.			S Group 1 & OTSG	
4.1.9	Include data feedback reports and the process for reporting in the <i>State Data Collection and Reporting Process Guidelines</i> for completion of Objectives 2.3.3 - 2.3.8.			S Group 1 & OTSG	

<b>Objective 4.2</b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
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<b>To develop mechanism for confidentiality and security of the data during feedback process ensuring compatibility with HIPAA.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 2.3</b>	<b>S Group 1</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
4.2.1	Review feedback reports and data access processes developed under objective 4.1.3 and 4.1.5.			S Group 1 & OTSG	
4.2.2	Identify blinding mechanism for all data reports to ensure anonymity of provider agencies.			S Group 1 & OTSG	
4.2.3	Identify security mechanisms for any data access processes developed.			S Group 1 & OTSG	
4.2.4	Include confidentiality and security mechanisms in the <i>State Data Collection and Reporting Process Guidelines</i> for completion of Objectives 2.3.3 - 2.3.8.			S Group 1 & OTSG	

<b><u>Objective 4.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current regulations to ensure all EMS system evaluation requirements developed under this goal are included.</b>	<b>Yes</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
4.3.1	Identify all current, and monitor proposed affected regulations.			S Group 3	Ongoing
4.3.2	Draft appropriate language revisions for each regulation which would ensure compliance with the <i>State EMS System Data Collection and Reporting Guidelines</i> .			S Group 3	
4.3.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.			S Group 3	

## GOAL 5

**Establish a mechanism to ensure the data is utilized at the state, local and provider level for continuous quality improvement aimed at improving EMS services and quality of patient care, decreasing death and disability, and reducing costs.**

<b><u>Objective 5.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop program for continuous quality improvement at both the state, local, and provider level</b>	<b>Yes</b>	<b>Yes</b>	<b>See Objective 5.3</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
5.1.1	Identify all system participants that should be involved in a CQI process.			S Group 2	
5.1.2	Utilizing the NHTSA document entitled, <i>A Leadership Guide to Quality Improvement for EMS Systems</i> as a model, develop a draft program, which includes all identified system participants and utilizes the information received through the data collection, reporting and evaluation process, to; identify areas in need of improvement, develop improvement plans, and to test those improvements utilizing a timely, scientific methodology.			S Group 2	
5.1.3	Develop a methodology for utilizing the above program at a state, local and provider level. The methodology developed should identify which parts of the program would require mandatory participation of each system participant, and which parts could be voluntary. (Coordinate efforts with the development of Objectives 10.1 and 10.2).			S Group 2	
5.1.4	Develop a methodology for evaluating the appropriateness of the improvements that have been successfully tested for integration into the statewide EMS system taking into consideration unique rural vs urban program needs and limitations.			S Group 2	
5.1.5	Include program into draft <i>State EMS CQI Guidelines</i> (See Objective 5.3)			S Group 2	

<b><u>Objective 5.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop legislation to ensure participation by all system participants in CQI processes</b>	<b>No</b>	<b>No</b>	<b>EMS Quality Improvement Legislation</b>	<b>S Group 3</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
5.2.1	Research existing, and monitor proposed statute and regulation to determine the current requirements for CQI involvement.			S Group 3	Ongoing
5.2.2	Draft legislative/regulatory language in bullet points necessary to ensure state and local QI systems participation.			S Group 3	
5.2.3	Present proposed legislative bullet points to Work Group D for preliminary approval.			S Group 3	
5.2.4	Present proposed legislative bullet points to Vision Project Team for inclusion in the vision legislative process.			Group D	
5.2.5	Assist Project team with legislative process as needed			S Group 3	

<b><u>Objective 5.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop <i>State EMS CQI Guidelines</i></b>	<b>No</b>	<b>No</b>	<b>State EMS CQI Guidelines</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
5.3.1	Draft <i>State EMS CQI Guidelines</i> to include all program areas above and include all pertinent components of Objective 10.1 (Organizational Structure).			S Group 2	
5.3.2	Submit <i>State CQI Guidelines</i> to Work Group D for preliminary approval.			S Group 2	
5.3.3	Upon approval of the Project Team, submit <i>State CQI Guidelines</i> to the State EMS Commission for approval to begin the formal EMS guideline development process.			S Group 2	
5.3.4	Work with State EMSA to make revisions during public comment periods.			S Group 2	
5.3.5	Submit guidelines to EMS Commission for adoption.			S Group 2	

<b><u>Objective 5.4</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current regulations to ensure all EMS CQI requirements developed under this goal are included.</b>	<b>No</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
5.4.1	Identify all current, and monitor proposed affected regulations.			S Group 3	Ongoing
5.4.2	Draft appropriate language revisions for each regulation which would ensure compliance with the <i>State CQI Guidelines</i> .			S Group 3	
5.4.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.			S Group 3	

## GOAL 6

Establish communication linkages with EMS training and prevention programs to ensure needs identified through the evaluation process are integrated into the EMS training curriculum and prevention programs.

<b><u>Objective 6.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop mechanism to ensure training needs identified through system evaluation process are integrated into training programs</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 2.3</b>	<b>S Group 2</b>	<b>Begin in Year 3</b>
<b><u>Action Steps</u></b>					
6.1.1	In conjunction with Work Group C identify initial training programs and C.E. processes that may be affected.			S Group 2	
6.1.2	In conjunction with Work Group C develop a process: 1) to revise initial, and C.E. training program curriculum being utilized under current regulatory standards, and 2) to revise regulatory standards if necessary			S Group 2	
6.1.3	Include processes for revising curriculum in the <i>State Data Collection and Reporting Process Guidelines</i> for completion of Objectives 2.3.3 - 2.3.8.			S Group 2	

<b><u>Objective 6.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop mechanism to ensure prevention needs identified through system evaluation process are included in statewide prevention programs</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 2.3</b>	<b>S Group 2</b>	<b>Begin in Year 3</b>
<b><u>Action Steps</u></b>					
6.2.1	In conjunction with Work Group F identify prevention programs that may be affected.			S Group 2	
6.2.2	In conjunction with Work Group F develop a process: 1) to revise prevention programs under current regulatory standards, and 2) to revise regulatory standards if necessary			S Group 2	
6.2.3	Include processes for revising curriculum in the <i>State Data Collection and Reporting Process Guidelines</i> for completion of Objectives 2.3.3 - 2.3.8.			S Group 2	

<b><u>Objective 6.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current regulations to ensure all EMS training requirements developed under this goal are included.</b>	<b>No</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 3</b>
<b><u>Action Steps</u></b>					
6.3.1	Identify all current, and monitor proposed affected regulations.			S Group 3	Ongoing
6.3.2	Draft appropriate language revisions for each regulation which would ensure compliance with the <i>State Data Collection and Reporting Process Guidelines</i>			S Group 3	
6.3.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.			S Group 3	

## GOAL 7

Establish system evaluation training for all levels of EMS system personnel to ensure proper documentation, data entry, analysis, utilization of data and an understanding of the principles of research.

<b><u>Objective 7.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop State EMS System Evaluation Training Guidelines.</b>	<b>Yes</b>	<b>Yes</b>	<b>State EMS System Evaluation Training Guidelines</b>	<b>S Group 2</b>	<b>Begin in Year 3</b>
<b><u>Action Steps</u></b>					
7.1.1	Identify all categories of EMS personnel which should receive EMS system evaluation training.			S Group 2	
7.1.2	In conjunction with Work Group C, develop training curriculum module for each category of personnel.			S Group 2	
7.1.3	In conjunction with Work Group C, establish instructor requirements.			S Group 2	
7.1.4	In conjunction with Work Group C, establish process for integration of the training module into existing training programs.			S Group 2	
7.1.5	In conjunction with Work Group C, establish process for training currently certified/licensed and administrative personnel.			S Group 2	
7.1.6	In conjunction with Work Group C, create draft of the <i>State EMS System Evaluation Training Guidelines</i> document to include the above.			S Group 2	
7.1.7	Submit draft guidelines to Work Group D for preliminary approval.			S Group 2	
7.1.8	Upon approval of the Project Team, submit draft guidelines to the State EMS Commission for approval to begin the formal EMS guideline development process.			EMSA & Group D	
7.1.9	Work with State EMSA to make revisions during public comment periods.			Group D	
7.1.10	Submit guidelines to EMS Commission for adoption.			EMSA	

<b><u>Objective 7.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To make all necessary changes to current training requirements in regulation to ensure system and evaluation curriculum are included.</b>	<b>No</b>	<b>No</b>	<b>Revised regulation language</b>	<b>S Group 3</b>	<b>Begin in Year 3</b>
<b><u>Action Steps</u></b>					
7.2.1	In conjunction with Work Group C, identify all current, and monitor proposed affected regulations.			S Group 3	Ongoing
7.2.2	In conjunction with Work Group C, draft appropriate language revisions for each regulation which would ensure compliance with the <i>State EMS System Evaluation Training Guidelines</i> .			S Group 3	
7.2.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.			S Group 3	

## GOAL 8

**Ensure immunity for medical control and quality improvement processes and discovery protection for all local and state EMS quality improvement efforts to ensure cooperation and participation of all EMS participants in patient care and EMS service evaluation.**

<b><u>Objective 8.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop legislation to ensure immunity for medical control and EMS quality improvement processes</b>	<b>No</b>	<b>No</b>	<b>EMS Quality Improvement Immunity and Discovery Protection Legislation</b>	<b>S Group 3</b>	<b>Oct 2000</b>
<b><u>Action Steps</u></b>					
8.1.1	Research existing statute and regulation to determine the current level of immunity protection for EMS medical control and QI.			S Group 3	Mar 2000
8.1.2	Research other state and national mechanisms to ensure immunity for medical control and QI.			S Group 3	Apr 2000
8.1.3	Based upon analysis of research, draft legislative bullet points necessary to provide the state and local EMS medical control and QI systems with immunity.			S Group 3	July 2000
8.1.4	Present proposed legislative bullet points to Work Group D for preliminary approval.			S Group 3	Aug 2000
8.1.5	Present proposed legislative bullet points to EMS Vision Project Team for inclusion in vision legislative process.			Group D	Oct 2000
8.1.6	Assist Project Team as needed			S Group 3	On going

<b><u>Objective 8.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop legislation to strengthen confidentiality and discovery protection for the EMS quality improvement process.</b>	<b>No</b>	<b>No</b>	<b>EMS Quality Improvement Immunity and Discovery Protection Legislation</b>	<b>S Group 3</b>	<b>Oct 2000</b>
<b><u>Action Steps</u></b>					
8.2.1	Research existing statute and regulation to determine the current level of confidentiality and discovery protection for EMS quality improvement processes.			S Group 3	Mar 2000
8.2.2	Research other state and national mechanisms to ensure confidentiality and discovery protection.			S Group 3	Apr 2000
8.2.3	Based upon analysis of research, draft legislative bullet points necessary to provide the state, local, an provider EMS QI systems with confidentiality and discovery protection.			S Group 3	July 2000
8.2.4	Present proposed legislative bullet points to Work Group D for preliminary approval.			S Group 3	Aug 2000
8.2.5	Present proposed legislative bullet points to EMS Vision Project Team for inclusion in vision legislative process			Group D	Oct 2000
8.2.6	Assist Project Team as needed			Group D	On going

<b><u>Objective 8.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
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To make all necessary changes to current regulation to ensure consistency with the above suggested immunity, discovery and protection legislation.		No	No	Revised regulation language	S Group 3	Begin in Year 2
<b><u>Action Steps</u></b>						
8.3.1	Identify all current, and monitor proposed affected regulations.				S Group 3	Ongoing
8.3.2	Draft appropriate language revisions for each affected regulation				S Group 3	
8.3.3	Upon approval of the Project Team, submit proposed regulation revisions to the EMSA for inclusion in the next round of regulation changes.				S Group 3	

## GOAL 9

Establish guidelines for conducting and funding state supported or state required EMS research.

<b><u>Objective 9.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop guidelines for conducting EMS Research.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 9.4</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
9.1.1	Identify the various types of state required or state funded research that may be conducted to include: trial studies, treatment guideline effectiveness research, EMS system cost evaluation studies, patient outcome studies, etc.			S Group 2	
9.1.2	Identify the various research design methodologies practical for EMS such as quantitative, qualitative, survey, observation, historical, experimental, evaluation, etc.			S Group 2	
9.1.3	Identify current requirements and standards for conducting EMS research for each research design methodology identified.			S Group 2	
9.1.4	Based upon the organization structure and standard operating procedures for EMS research developed under Objectives 10.1 and 10.2, develop criteria for EMS research based upon above standards which take into practical consideration for research in rural areas with low study populations.			S Group 2	
9.1.5	Include information in <i>EMS Research Guidelines</i> (See Objective 9.3)			S Group 2	

<b><u>Objective 9.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop guidelines for EMS Research Funding.</b>	<b>Yes</b>	<b>No</b>	<b>See Objective 9.4</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
9.2.1	Based on the organization structure and standard operating procedures for EMS research developed under Objectives 10.1 and 10.2, and the guidelines for conducting EMS research developed under Objective 9.1, identify the types of research which should be given priority for state funded research projects.			S Group 2	
9.2.2	Develop minimum standards criteria for research projects to be funded by the state EMSA.			S Group 2	
9.2.3	Develop strategies which would encourage statewide EMS research projects that meet the minimum standards developed above.			S Group 2	
9.2.4	Include information in <i>EMS Research Guidelines</i> (See Objective 9.3)			S Group 2	

<b><u>Objective 9.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop <i>EMS Research Guidelines</i> Document</b>	<b>Yes</b>	<b>No</b>	<b>EMS Research Guidelines</b>	<b>S Group 2</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
9.3.1	Develop format for the document.			S Group 2	
9.3.2	Include written documentation from Objectives 9.2 and 9.3			S Group 2	
9.3.3	Develop draft of <i>EMS Research Guidelines</i> to include organizational structure from Objective 10.1, all necessary charts, graphs, organizational chart, preface materials, and appendices.			S Group 2	
9.3.4	Submit draft guidelines to State EMSA for written comment and revise as needed.			S Group 2	
9.3.5	Submit draft guidelines to Work Group D for comment and preliminary approval.			S Group 2	
9.3.6	Upon approval of the Project Team, submit draft guidelines to EMS Commission for approval to begin the formal EMS guideline development process.			EMSA & Group D	
9.3.7	Work with State EMSA to make revisions during public comment periods.			Group D	
9.3.8	Submit final guidelines to EMS Commission for adoption.			EMSA	

<b><u>Objective 9.4</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To reduce barriers to EMS research</b>	<b>Yes</b>	<b>Yes</b>	<b>EMS Research Guidelines</b>	<b>S Groups 2 &amp; 3</b>	<b>Begin in Year 2</b>
<b><u>Action Steps</u></b>					
9.4.1	Identify all current barriers to conducting EMS research in California such as restrictions for prehospital human subject review			S Group 2	
9.4.2	Identify legislative/regulatory changes in bullet point format required to reduce identified barriers			S Group 3	
9.4.3	Present legislative bullet points to to Work Group D for preliminary approval.			S Group 3	
9.4.4	Present proposed legislative bullet points to Vision Project Team for inclusion in the vision legislative process			S Group 3	
9.4.5	Assist Project Team with legislative process as needed			S Group 3	
9.4.6	Draft appropriate language revisions for each regulation requiring revision			S Group 3	
9.4.7	Upon approval of the Project Team, submit proposed regulation revision language to the EMSA for inclusion in the next round of regulatory changes.			S Group 3	

## GOAL 10

**Establish an organizational structure, standard operating procedures, and funding necessary for the implementation and maintenance of a statewide EMS data collection, evaluation, and improvement process.**

<b><u>Objective 10.1</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop an EMS system evaluation and improvement <u>organizational structure</u> to be included in the <i>State EMS Data Collection and Reporting Process Guidelines</i>, <i>State EMS System Evaluation Guidelines</i>, <i>EMS Research Guidelines</i> and <i>State EMS CQI Guidelines</i>.</b>	<b>Yes</b>	<b>Yes</b>	<b>See Objectives 2.3, 3.5 &amp; 5.3</b>	<b>S Group 2</b>	<b>Dec 2000</b>
<b><u>Action Steps</u></b>					
10.1.1 Develop draft organizational structure for statewide data collection, evaluation, and reporting which identifies all affected agencies and there relationship to each other				S Group 2	Jan 2000
10.1.3 Develop draft organizational structure for state required or state funded research oversight which identifies all affected agencies, there relationship to each other, and their linkages the data collection, evaluation and reporting process				S Group 2	Jun 2000
10.1.5 Integrate the organizational structures into the <i>State EMS Data Collection and Reporting Process Guidelines</i> , <i>State EMS System Evaluation Guidelines</i> , <i>EMS Research Guidelines</i> and <i>State EMS CQI Guidelines</i> as appropriate.				S Group 2	TBA

<b><u>Objective 10.2</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop an EMS system evaluation and improvement <u>standard operating procedures</u> necessary for the implementation and maintenance of the EMS data collection and system evaluation process, to be included in the <i>State EMS Data Collection and Reporting Process Guidelines</i>, <i>State EMS System Evaluation Guidelines</i>, <i>EMS Research Guidelines</i> and <i>State EMS CQI Guidelines</i>.</b>	<b>Yes</b>	<b>Yes</b>	<b>See Objectives 2.3, 3.5 &amp; 5.3</b>	<b>S Group 2</b>	<b>Dec 2000</b>
<b><u>Action Steps</u></b>					
10.2.1 Based upon the organizational structure identified in Objective 10.1, develop draft standard operation procedures for statewide data collection, evaluation, reporting, and research which identifies the roles and responsibilities all affected agencies and the data and communication linkages between each of those agencies.				S Group 2	Mar 2000
10.2.2 Identify key staff positions at each of the affected agencies and develop model qualifications and job description for each required position				S Group 2	June 2000
10.2.3 Integrate the SOPs into the <i>State EMS Data Collection and Reporting Process Guidelines</i> , <i>State EMS System Evaluation Guidelines</i> , <i>EMS Research Guidelines</i> and <i>State EMS CQI Guidelines</i> as appropriate.				S Group 2	TBA

<b><u>Objective 10.3</u></b>	<b>Development Funding Needed?</b>	<b>Implement Funding Needed?</b>	<b>Final Deliverable</b>	<b>Activity Lead</b>	<b>Estimated Completion Date</b>
<b>To develop proposed <u>funding</u> mechanisms to maintain the organizational structure and operations of the EMS data collection and system evaluation process.</b>	<b>Yes</b>	<b>Yes</b>	<b>See Objectives 2.3, 3.5 &amp; 5.3</b>	<b>S Group 2</b>	<b>Dec 2000</b>
<b><u>Action Steps</u></b>					
10.3.1	Identify all required staff positions and qualifications, initial and annual equipment costs, programming costs, and operating expenses necessary for start-up and continued maintenance of the state EMS data collection, reporting system			S Group 2	July 2000
10.3.2	Develop initial start-up and annual budget proposals			S Group 2	Oct 2000
10.3.3	Identify possible funding sources for the system, and necessary legislation that will provide secure, ongoing support.			S Group 2	Oct 2000
10.3.4	Submit proposed budgets and list of possible funding sources to the Work Group A (Funding)			S Group 2	Nov 2000
10.3.5	Work with Work Group A by providing all necessary supporting documentation necessary to secure funding.			S Group 2	TBA
10.3.6	Include proposed budgets into all appropriate final reports			S Group 2	TBA

# **APPENDIX**

**ORIGINAL VISION OBJECTIVES AND NHTSA  
RECOMMENDATIONS ASSIGNED TO WORK GROUP “D”**

<b>VISION PROCESS OBJECTIVES ASSIGNED</b>		<b>Where the Objective is Addressed in the Action Plan</b>
1.	Identify two to three indicators for QI in each of the three areas: dispatch area, field, and in the hospital.	Goal 3
2.	Develop benchmarks for EMS system evaluation based on results. Share results internally and with EMSA. Evaluate and publish results where appropriate.	Goal 3 and 4
3.	Assess the need for, and if necessary, promote legislation to ensure continuous medical quality improvement in the EMS system.	Goal 5
4.	<p>Develop a Statewide Integrated Information System driven by the scope and purpose to acquire, process, and disseminate information to all necessary stakeholders in order to evaluate and improve the delivery of all services delivered by the EMS System. The information system will contain all of the following components:</p> <ol style="list-style-type: none"> <li>1. Funding</li> <li>2. Identification of all customers</li> <li>3. Standardized data sets</li> <li>4. Coordination of all participants</li> <li>5. Client identification</li> <li>6. Confidentiality and security</li> <li>7. Transmission</li> <li>8. Central repository</li> <li>9. Database linkage</li> <li>10. Dissemination</li> </ol>	Goal 2, 3 and 4
5.	Research, identify, and expand non-traditional roles for <u>all practitioners</u> based on community needs and benefits.	Sent back to Project Team for reassignment
6.	Implement QI programs in order to provide continuing review of program effectiveness for administration, system planning, and evaluation activities.	Goal 1, 5 and 10
7.	Document the costs to medical facilities associated with their support of the EMS System.	Goal 3.4
8.	Work with the hospital industry to determine the amount of uncompensated care provided through the ER.	Goal 3.4

9.	Establish a multi-disciplinary task force to include payers to develop suggestions for studies and cooperative ventures between public health, public safety, and payers directed at education which may reduce morbidity and mortality of certain patient populations and/or disease and injury processes locally. Actively seek out and broker the establishment of cooperative ventures and measurement parameters (of intervention success, cost of delivery, and cost avoidance), and report its findings to the State EMS Commission. Distribute the results of these ventures into the health care community with the goal of reporting successful and unsuccessful methodologies.	Goal 3, 4, 5, 6, 9, and 10
10.	Design and establish a statewide QI capability in collaboration with the identified EMS stakeholders.	Goal 1, 5, 7, and 10
11.	The Health and Safety Code should be modified to provide immunity for medical control and quality improvement for local EMS agency medical directors and provider agencies.	Goal 8
12.	The Health and Safety Code should be modified to provide discovery protection for provider and local EMS agency quality improvement activities.	Goal 8
13.	Due to the unique nature of interfacility transport (IFT), this area needs to be evaluated and addressed as a unique entity within emergency services.	Sent back to Project Team for reassignment
14.	Conduct an assessment of PSAPs in California to determine optimal configuration and interface with EMS.	Sent back to Project Team for reassignment



<b>NHTSA ASSESSMENT RECOMMENDATION</b>		<b>Where the Recommendation is Addressed in the Action Plan</b>
9.	The EMS Authority should establish performance standards for LEMSAs and should develop a system for monitoring and evaluating the LEMSA including the provision of technical assistance in areas needing improvement.	Goal 1
11.	The EMS Authority should write, and help shepherd through the legislative process, legislation to assure confidentiality and non-discoverability of EMS and trauma records, and EMS provider protection while participating in EMS Quality Improvement (QI) activities.	Goal 8
18	Develop and implement more definitive EMSA review criteria and process for LEMSA plans and other requests.	Goal 1
19.	Develop a resource assessment process with and through the LEMSAs.	Goal 1
23.	Establish a comprehensive statewide EMS and trauma data collection and EMS system resource information system.	Goal 2
71.	EMSA should define a mechanism to provide physician oversight to review patient care, establish performance indicators and development of ongoing quality improvement programs in the state EMS plan.	Goal 10
75.	Information and trends developed from the trauma registry should be utilized in PIER and injury prevention programs.	Goal 3, 4, 5, and 6
77.	Mechanisms should be delineated to ensure that data on trauma patients from all hospitals that deliver care to these patients must be entered into the LEMSA and state trauma registry and that this is managed in a confidential manner.	Goal 2 and 4
78.	Develop a comprehensive, medically directed statewide quality improvement program to evaluate patient care processes and outcomes.	Goal 5
79.	Develop a statewide integrated information system (as described in the Vision document) that will have the capability to monitor, evaluate, and elucidate emergency medical services and trauma care in California.	Goal 1, 2, 3, 4, 5, and 10
80.	Ensure the design capability for linkages of the statewide integrated information system to other public and private data systems.	Goal 2 and 4
81.	Allocate personnel and resources to implement the statewide integrated information system including necessary technical assistance, materials, and funding to LEMSAs.	Goal 10
82.	Enforce the use of a uniform prehospital data set consistent with the NHTSA Uniform Prehospital Data Set. Mandate submission of an agreed-upon, timely, limited, uniform, common language data set from the LEMSAs to the EMSA.	Goal 2 and 3
83.	Seek ways to improve the number of completed patient care records that are delivered to the ED staff upon patient arrival with a goal of 98% compliance.	Goal 5
85.	The EMSA should write, and help shepherd through the legislative process, legislation to assure confidentiality and non-discoverability of EMS and trauma records and EMS provider protection while participating in EMS QI activities.	Goal 8

## **(ANTICIPATED) DOCUMENTS TO BE DEVELOPED**

The following is a list of documents that are anticipated to be developed during Phase II of the project.

**NOTE: Most of the documents listed below are identified for development as “Guidelines.” However, during the development process it may become evident that some of the documents should, instead, be developed as regulation or statute. These adjustments will be made as the process progresses.**

State EMS Data Set

State EMS Authority Evaluation Guidelines

Local EMS Agencies Evaluation Guidelines

State EMS Data Collection and Reporting Process Guidelines

State EMS System Evaluation Guidelines

### **System Performance**

Training Programs Data Indicators

Dispatch Data Indicators

First Response Data Indicators

Ambulance Transport Provider Data Indicators

Special Response Services Data Indicators

Base Hospital Data Indicators

Receiving Hospitals Data Indicators

Specialty Care Services Data Indicators

Disaster/Multi-Casualty Incidents Data Indicators

System Performance Evaluation Process

### **Quality of Care**

Treatment Protocols Compliance Indicators

Skill Success Rates Indicators

Quality of Care Evaluation Process

Treatment Protocols Evaluation Process

### **Customer Satisfaction**

Customer Satisfaction Indicators

Customer Satisfaction Evaluation Process

### **Cost of Services**

Cost of Service Indicators

Cost of Services Evaluation Process

State EMS Continuous Quality Improvement Guidelines

State EMS System Evaluation Training Guidelines

EMS Research Guidelines

Project Bibliography

## **REQUIRED LEGISLATION**

Following is a list of EMS system review and data issues which have been identified that are not adequately addressed in current statute, and will require new legislation to clarify and enhance the EMS data collection and evaluation process. This is a preliminary list which may be added to as legislative needs are identified.

1. Mandatory participation by all EMS system participants and hospitals in the statewide EMS CQI program(s) and data collection processes
2. Immunity for medical control and quality improvement activities at both a state and local level
3. Confidentiality and discovery protection for provider, local EMS agency, and state quality improvement efforts
4. Funding for the statewide EMS evaluation and quality improvement program
5. Provide support and reduce barriers to perform EMS research to include a statewide human subject review approval process for out-of-hospital research

## **REQUIRED REGULATORY CHANGES**

1. A matrix of affected regulations will be developed listing each proposed regulatory revision by objective.